

See # 6

Sheet 1 of 4

SUBSTITUTE FORM PTO-1449 (MODIFIED)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)  (37 C.F.R. §1.98(b))	Attorney Docket No.	07180/004003
	Serial No.	Not Yet Assigned
	Applicant	Vassilis I. Zannis et al.
	Filing Date	April 5, 2001
	Group	Not Yet Assigned 1630
	IDS Filed	April 5, 2001
	Customer No.	21559

1630 U.S. PTO  
 09/827854

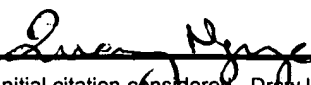


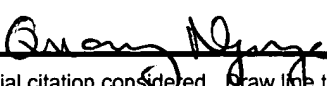
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
QN	Cardin et al., "Binding of a high reactive heparin to human apolipoprotein E: Identification of two heparin-binding domains," <i>Biochem. Biophys. Res. Commun.</i> 134:783-789 (1986).
	Chait et al., "Impaired very low density lipoprotein and triglyceride removal in broad beta disease: Comparison with endogenous hypertriglyceridemia," <i>Metabolism</i> 27:1055-1066 (1978).
	Cladaras et al., "The molecular basis of a familial apoE deficiency. An acceptor splice site mutation in the third intron of the deficient apoE gene," <i>J. Biol. Chem.</i> 262:2310-2315 (1987).
	Cohn et al., "Plasma concentration of apolipoprotein E in intermediate-sized remnant-like lipoproteins in normolipidemic and hyperlipidemic subjects," <i>Arterioscler. Thromb. Vas. Biol.</i> 16:149-159 (1996).
	Cullen et al., "Phenotype-dependent differences in apolipoprotein E metabolism and in cholesterol homeostasis in human monocyte-derived macrophages," <i>J. Clin. Invest.</i> 101:1670-1677 (1998).
	Dong et al., "Human apolipoprotein E: Role of arginine 61 in mediating the lipoprotein preferences of the E3 and E4 isoforms," <i>J. Biol. Chem.</i> 269:22358-22365 (1994).
	Dong et al., "Novel mechanism for defective receptor binding of apolipoprotein E2 in type III hyperlipoproteinemia," <i>Nature Struc. Biol.</i> 3:718-722 (1996).
	Ehnholm et al., "Role of apolipoprotein E in the lipolytic conversion of $\beta$ -very low density lipoproteins to low density lipoproteins in type III hyperlipoproteinemia," <i>Proc. Natl. Acad. Sci. USA</i> 81:5566-5570 (1984).
	Fan et al., "Increased expression of apolipoprotein E in transgenic rabbits results in reduced levels of very low density lipoproteins and an accumulation of low density lipoproteins in plasma," <i>J. Clin. Invest.</i> 101:2151-2164 (1998).
	Fazio et al., "Increased atherosclerosis in mice reconstituted with apolipoprotein E null macrophages," <i>Proc. Natl. Acad. Sci. USA</i> 94:4647-4652 (1997).
	Fazio et al., "Altered lipoprotein metabolism in transgenic mice expressing low levels of a human receptor-binding-defective apolipoprotein E variant," <i>J. Lipid Res.</i> 35:408-416 (1994).
QN	Fazio et al., "Susceptibility to diet-induced atherosclerosis in transgenic mice expressing a dysfunctional human apolipoprotein E (Arg112, Cys142)," <i>Arterioscler. Thromb.</i> 14:1873-1879 (1994).
EXAMINER	DATE CONSIDERED
Quang Nguyen	7/29/03
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PATENT TRADEMARK OFFICE

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)  (37 C.F.R. §1.98(b))		Attorney Docket No. 07180/004003  Serial No. Not Yet Assigned  Applicant Vassilis I. Zannis et al.  Filing Date April 5, 2001  Group <del>Not Yet Assigned</del> 163C  IDS Filed April 5, 2001  Customer No. 21559
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)		
Q/N	Fazio et al., "Type III hyperlipoproteinemic phenotype in transgenic mice expressing dysfunctional apolipoprotein E," <i>J. Clin. Invest.</i> 92:1497-1503 (1993).	
	Ghiselli et al., "Type III hyperlipoproteinemia associated with apolipoprotein E deficiency," <i>Science</i> 214:1239-1241 (1981).	
	Herz et al., "Lipoprotein and receptor interactions <i>in vivo</i> ," <i>Curr. Opin. Lipidol.</i> 6:97-103 (1995).	
	Huang et al., "Effects of genotype and diet on cholesterol efflux into plasma and lipoproteins of normal, apolipoprotein A-I-, and apolipoprotein E-deficient mice," <i>Arterioscler. Thromb. Vasc. Biol.</i> 17:2010-2019 (1997).	
	Huang et al., "A plasma lipoprotein containing only apolipoprotein E and with $\gamma$ mobility on electrophoresis releases cholesterol from cells," <i>Proc. Natl. Acad. Sci. USA</i> 91:1834-1838 (1994).	
	Huang et al., "Apolipoprotein E2 reduces the low density lipoprotein level in transgenic mice by impairing lipoprotein lipase-mediated lipolysis of triglyceride-rich lipoproteins," <i>J. Biol. Chem.</i> 273:17483-17490 (1998).	
	Huang et al., "Overexpression and accumulation of apolipoprotein E as a cause of hypertriglyceridemia," <i>J. Biol. Chem.</i> 273:26388-26393 (1998).	
	Huang et al., "Overexpression of apolipoprotein E3 in transgenic rabbits causes combined hyperlipidemia by stimulating hepatic VLDL production and impairing VLDL lipolysis," <i>Arterioscler. Thromb. Vasc. Biol.</i> 19:2952-2959 (1999).	
	Innerarity et al., "Enhanced binding by cultured human fibroblasts of apo-E-containing lipoproteins as compared with low density lipoproteins," <i>Biochemistry</i> 17:1440-1447 (1978).	
	Innerarity et al., "The receptor-binding domain of human apolipoprotein E: Binding of apolipoprotein E fragments," <i>J. Biol. Chem.</i> 258:12341-12347 (1983).	
	Ji et al., "Intravenous heparinase inhibits remnant lipoprotein clearance from the plasma and uptake by the liver: <i>in vivo</i> role of heparan sulfate proteoglycans," <i>J. Lipid Res.</i> 36:583-592 (1995).	
	Ji et al., "Role of heparan sulfate proteoglycans in the binding and uptake of apolipoprotein E enriched remnant lipoproteins by cultured cells," <i>J. Biol. Chem.</i> 268:10160-10167 (1993).	
	Ji et al., "Secretion capture role for apolipoprotein E in remnant lipoprotein metabolism involving cell surface heparan sulfate proteoglycans," <i>J. Biol. Chem.</i> 269:2764-2772 (1994).	
	Ji et al., "Variable heparan sulfate proteoglycan binding of apolipoprotein E variants may modulate the expression of type III hyperlipoproteinemia," <i>J. Biol. Chem.</i> 269:13421-13428 (1994).	
	Jong et al., "Nascent very low density lipoprotein triacylglycerol hydrolysis by lipoprotein lipase is inhibited by apolipoprotein E in a dose-dependent manner," <i>Biochem. J.</i> 328:745-750 (1997).	
	Kim D. et al., "Human apolipoprotein E receptor 2: A novel lipoprotein receptor of the low density lipoprotein receptor family predominantly expressed in brain," <i>J. Biol. Chem.</i> 271:8373-8380 (1996).	
	Kuipers et al., "Impaired secretion of very low density lipoprotein-triglyceride by apolipoprotein E-deficient mouse hepatocytes," <i>J. Clin. Invest.</i> 100:2915-2922 (1997).	
Q/N	Linton et al., "Prevention of atherosclerosis in apolipoprotein E-deficient mice by bone marrow transplantation," <i>Science</i> 267:1034-1037 (1995).	
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		Applicant		Vassilis I. Zannis et al.	
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		IDS Filed		April 5, 2001	
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OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)					
GN	Mahley et al., "Apolipoprotein E: From atherosclerosis to Alzheimer's disease and beyond," <i>Curr. Opin. Lipidol.</i> 10:207-217 (1999).				
	Mahley et al., "Interaction of plasma lipoproteins containing apolipoproteins B and E with heparin and cell surface receptors," <i>Biochim. Biophys. Acta</i> 575:81-91 (1979).				
	Mann et al., "Apolipoprotein E-1 <sup>Harrisburg</sup> : a new variant of apolipoprotein E dominantly associated with type III hyperlipoproteinemia," <i>Biochim. Biophys. Acta</i> 1005:239-244 (1989).				
	Plump et al., "Severe hypercholesterolemia and atherosclerosis in apolipoprotein E-deficient mice created by homologous recombination in ES cells," <i>Cell</i> 71:343-353 (1992).				
	Rall et al., "Structural basis for the receptor binding heterogeneity of apolipoprotein E from type III hyperlipoproteinemic subjects," <i>Proc. Natl. Acad. Sci., USA</i> 79:4696-4700 (1982).				
	Rall et al., "Type III hyperlipoproteinemia associated with apolipoprotein E phenotype E3/3: Structure and genetics of an apolipoprotein E3 variant," <i>J. Clin. Invest.</i> 83:1095-1101 (1989).				
	Reddick et al., "Atherosclerosis in mice lacking apo E: Evaluation of lesional development and progression," <i>Arterioscler. Thromb.</i> 14:141-147 (1994).				
	Rensen et al., "Apolipoprotein E effectively inhibits lipoprotein lipase-mediated lipolysis of chylomicron-like triglyceride-rich lipid emulsions <i>in vitro</i> and <i>in vivo</i> ," <i>J. Biol. Chem.</i> 271:14791-14799 (1996).				
	Schaefer et al., "Familial apolipoprotein E deficiency," <i>J. Clin. Invest.</i> 78:1206-1219 (1986).				
	Shimano et al., "Inhibition of diet-induced atheroma formation in transgenic mice expressing apolipoprotein E in the arterial wall," <i>J. Clin. Invest.</i> 95:469-476 (1995).				
	Smit et al., "Genetic heterogeneity in familial dysbetalipoproteinemia. The E2 (lys146→gln) variant results in a dominant mode of inheritance," <i>J. Lipid Res.</i> 31:45-53 (1990).				
	Takahashi et al., "Rabbit very low density lipoprotein receptor: A low density lipoprotein receptor-like protein with distinct ligand specificity," <i>Proc. Natl. Acad. Sci. USA</i> 89:9252-9256 (1992).				
	van Vlijmen et al., "In the absence of endogenous mouse apolipoprotein E, apolipoprotein E*2(Arg-158 → Cys) transgenic mice develop more severe hyperlipoproteinemia than apolipoprotein E*3-Leiden transgenic mice," <i>J. Biol. Chem.</i> 271:30595-30602 (1996).				
	van den Maagdenberg et al., "Apolipoprotein E*3-Leiden allele results from a partial gene duplication in exon 4," <i>Biochem. Biophys. Res. Commun.</i> 165:851-857 (1989).				
	van den Maagdenberg et al., "Transgenic mice carrying the apolipoprotein E3-Leiden gene exhibit hyperlipoproteinemia," <i>J. Biol. Chem.</i> 268:10540-10545 (1993).				
	van Dijk et al., "In LDL receptor deficient mice, catabolism of remnant lipoproteins requires a high level of apoE but is inhibited by excess apoE," <i>J. Lipid. Res.</i> 40:336-344 (1999).				
	Wardell et al., "Apolipoprotein E2-Christchurch (136 Arg→ Ser). New variant of human apolipoprotein E in a patient with type III hyperlipoproteinemia," <i>J. Clin. Invest.</i> 80:483-490 (1987).				
QN	Wardell et al., "Apolipoprotein E3-Leiden contains a seven-amino acid insertion that is a tandem repeat of residues 121-127," <i>J. Biol. Chem.</i> 264:21205-21210 (1989).				
EXAMINER			DATE CONSIDERED		
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		QW	Weisgraber et al., "Human apolipoprotein E: Determination of the heparin binding sites of the apolipoprotein E3," <i>J. Biol. Chem.</i> 261:2068-2076 (1986).		
			Weisgraber et al., "The receptor-binding domain of human apolipoprotein E: monoclonal antibody inhibition of binding" <i>J. Biol. Chem.</i> 258:12348-12354 (1983).		
	Westerlund et al., "Discrete carboxyl-terminal segments of apolipoprotein E mediate lipoprotein association and protein oligomerization," <i>J. Biol. Chem.</i> 268:15745-15750 (1993).				
	Wilson et al., "Salt bridge relay triggers defective LDL receptor binding by a mutant apolipoprotein," <i>Structure</i> 2:713-718 (1994).				
	Wilson et al., "Three-dimensional structure of the LDL receptor-binding domain of human apolipoprotein E," <i>Science</i> 252:1817-1822 (1991).				
QW	Wolf et al., "Characterization and immunohistochemical localization of $\alpha_2$ -macroglobulin receptor (low density lipoprotein receptor-related protein) in human brain," <i>Am. J. Pathol.</i> 141:37-42 (1992).				
EXAMINER <i>Quayle</i>		DATE CONSIDERED 7/29/03			
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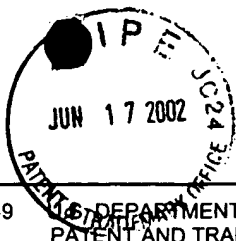
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		(37 C.F.R. §1.98(b))		Serial No. 09/827,854		
				Applicant Vassilis I. Zannis et al.		
				Filing Date April 5, 2001		
				Group <del>Not yet Assigned</del> 1636		
				IDS Filed August 23, 2001		
Customer No. 21559						
U.S. PATENTS						
Examiner's Initials	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (If Appropriate)
QW	5,958,684	09/28/99	Van Leeuwen et al.	435	6	10/2/96
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION						
Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation (Yes/No)
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)						
QW	Luo et al., "Structure and Expression of Dog Apolipoprotein A-1, E, and C-1 mRNAs: Implications for the Evolution and Functional Constraints of Apolipoprotein Structure," <i>Journal of Lipid Research</i> 30:1735-1746 (1989).					
I	Matsushima et al., "Primary Structure of Guinea Pig Apolipoprotein E," <i>Nucleic Acids Research</i> 18(1):202 (1989).					
I	Rudinger, "Characteristics of the Amino Acids as Components of A Peptide Hormone Sequence," <i>Peptide Hormones</i> Parson ed. p. 1-7 (1976).					
QW	Verma et al., "Gene Therapy - Promises, Problems and Prospects," <i>Nature</i> 389:239-342 (1997).					
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Sheet 1

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				Applicant		Vassilis I. Zannis et al.	
				Filing Date		April 5, 2001	
				Group		Not Yet Assigned	
				IDS Filed		May 29, 2002	
				Customer No.		21559	
U.S. PATENTS							
Examiner's Initials	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (If Appropriate)	
QN	5,811,243	9/22/98	Strittmatter et al.	435	7.1	10/25/96	
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION							
Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation (Yes/No)	
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)							
QN	Kypreos et al., "Domains of Apolipoprotein E Contributing to Triglyceride and Cholesterol Homeostasis <i>in Vivo</i> ," <i>Journal of Biological Chemistry</i> 276(23):19778-19786 (2001).						
QN	Tsukamoto et al., "Liver-directed Gene Transfer and Prolonged Expression of Three Major Human ApoE Isoforms in ApoE-deficient Mice," <i>J. Clin. Invest.</i> 100(1):107-114 (1997).						
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